

What is claimed is:

1. An administration system comprising:

at least one job directory for storing a file on a job wherein said job directory is recorded in a recording medium;

a database for recording the working state of a working subject or of said job;

a client terminal;

an application software employed by a client user at each client terminal; and

a working directory on a client terminal provided corresponding to said working subject and said job directory;

wherein if a connection state, between said working subject or said working directory corresponding thereto and said job directory, is changed, said application software records information regarding said connection state of said working subject onto said database so that said working state of said job is administered.

2. The administration system of claim 1, wherein said working state of said working subject, corresponding to said job, is administered.

3. The administration system of claim 1, wherein said working state, corresponding to said job, is determined according to information of said connection state so that said working state of each job is administered.

4. The administration system of claim 1, wherein said working subject is said client user.

5. The administration system of claim 4, wherein said application software is a front-end application software.

6. The administration system of claim 1, wherein said working subject is said application software.

7. The administration system of claim 6, wherein said application software is a front-end application software.

8. The administration system of claim 6, wherein said application software is an external application software.

9. The administration system of claim 1, wherein said working subject is said client terminal.

10. The administration system of claim 1, wherein said working directory is only accessible by said working subject, corresponding to said working directory.

11. The administration system of claim 1, wherein said working subject is in a connecting state when said working subject is in work; and said working subject is in a disconnecting state when said working subject is not in work.

12. The administration system of claim 1, wherein said information regarding said connection state includes at least pieces of information for identifying said working subject, said job and a change of said connection state.

13. The administration system of claim 1, wherein said information regarding said connection state includes at least pieces of information for identifying said working subject, said job, a change of said connection state and the time of said change of said connection state

14. The administration system of claim 13, wherein a working time period, for said job regarding said working subject, is calculated in accordance with said time of said change of said connection state.

15. The administration system of claim 1, wherein said connecting state is either a state of a connected condition or a state of a disconnected condition.

16. The administration system of claim 1, wherein said database includes a job table which comprises a job ID and a job name, a working subject table which comprises a working subject ID and a working subject name, a working state table which comprises a working subject ID and a working subject state in relation with said job ID, and a working state change time table which comprises a job ID and a working state change time in relation with said working subject ID.

17. The administration system of claim 1, wherein when said working subject is brought into a state of a connected condition in response to a command for start or restart of work by said working subject, said working state of said working subject is recorded as "Working" in said database; when said working subject is brought into a state of a disconnected condition in response to a command for discontinuation of work by said working subject, the working state of said working subject is recorded as "Discontinued" in said database; and when said working subject is brought

into a state of a disconnected condition in response to a command for the end of work by said working subject, the working state of said working subject is recorded as "Terminate" in said database.

18. The administration system of claim 17, wherein said working state of said job is recorded as "Working" in said database when said working state of said working subject is in a state of "Working".

19. The administration system of claim 17, wherein said working state of said job is recorded as "Discontinued" in said database when said working state of said working subject is in a state of "Discontinued".

20. The administration system of claim 17, wherein said working state of said job is recorded as "Terminate" in said database when said working state of said working subject is in a state of "Terminate".

21. The administration system of claim 1, wherein said working state of said working subject is verified by accessing said database so as that said working state of said working subject is administered.

22. The administration system of claim 1, wherein said database includes a working subject table which comprises a working subject name and a working subject ID in relation with said client terminal.

23. The administration system of claim 1, wherein said job directory is stored in a recording medium of a file server.

24. The administration system of claim 1, wherein said database is stored in a database server.

25. The administration system of claim 1, wherein said connection state is changed when said application receives an action set on said job as a working object and information for specifying an operation for said action.

26. The administration system of claim 25, wherein said working state of said action regarding at least one of said client user, said application and said client terminal is administered in accordance with a record of said database.

27. The administration system of claim 26, wherein said application is a front-end application software.

28. The administration system of claim 26, wherein said application is an external application.

29. The administration system of claim 25, wherein said application is a front-end application software.

30. The administration system of claim 29, wherein said working state of said working subject, regarding said job, is administered by said administration system.

31. The administration system of claim 30, wherein said front-end application software causes at least one of a first, second and third working states to be recorded in said database as information regarding said working state of said working subject with respect to said action set on said job.

32. The administration system of claim 31, wherein said front-end application software further causes the time of said change in said working state to be recorded in said database as information regarding said working state of said working subject with respect to said action set on said job.

33. The administration system of claim 32, wherein said database uses said time of said change in said working state to calculate a working time of said working subject for said action, and said database records said working time therein.

34. The administration system of claim 32, wherein said front-end application software uses said time of said change in said working state to calculate a working time of said working subject for said action.

35. The administration system of claim 31, wherein said first working state is recorded in said database after said front-end application software has acquired from said database a piece of information on a storage position for said job where said action as a working object is set, and a direct connection has been made between said job directory, storing said job, and said working directory according to said piece of information on said storage position.

36. The administration system of claim 35, wherein said second working state is recorded in said database after said direct connection has been disconnected by said front-end application software.



37. The administration system of claim 35, wherein said third working state is recorded in said database after said direct connection has been disconnected by said front-end application software and a work of said working subject is confirmed.

38. The administration system of claim 31, wherein upon receipt of a command on any one of said first, second and third working states, said front-end application software executes;

1) a process of referring said database said working state of said working subject as a authentication process, prior to a change of said connection state,

2) a process of determining, based on the result of said process of referring, if said command can be accepted or not,

3) a process of performing said change of said connection state when said command is accepted according to said process of determination, and

4) a process of sending a report that said command is not accepted when said command is not accepted according to said process of determination.

39. The administration system of claim 38, wherein in said authentication process, acceptability of a command on said

first working state is determined according to whether said action as a working object is present or not, or whether said working state is said second working state or not; acceptability of a command on said second working state is determined according to whether said working state is said first working state or not; and acceptability of a command on said third working state is determined according to whether said working state is in either one of said first working state or said second working state or not.

40. The administration system of claim 31, wherein said job directory is stored in a recording medium of a file server; and

upon receipt of a command on any one of said first, second and third working states, said file server executes;

1) a process of referring said database said working state of said working subject as an authentication process, prior to a change of said connection state,

2) a process of determining, based on the result of said process of referring, if said command can be accepted or not,

3) a process of performing said change of said connection state when said command is accepted according to said process of determination, and

4) a process of sending a report that said command is not accepted when said command is not accepted according to said process of determination.

41. The administration system of claim 40, wherein in said authentication process, acceptability of a command on said first working state is determined according to whether said action as a working object is present or not, or whether said working state is said second working state or not; acceptability of a command on said second working state is determined according to whether said working state is said first working state or not; and acceptability of a command on said third working state is determined according to whether said working state is in either one of said first working state or said second working state or not.

42. The administration system of claim 29, wherein said working state, regarding said job, is determined by a piece of information in response with said connection state so that said working state of said job is administered by said administration system.

43. The administration system of claim 42, wherein said front-end application software causes at least one of a

first, second, third and fourth action states to be recorded in said database as information regarding a action state of said action set on said job.

44. The administration system of claim 43, wherein said front-end application software further causes the time of a change in said action state to be recorded in said database as information regarding said action state of said action set on said job.

45. The administration system of claim 44, wherein said front-end application software uses said time of said change in said action state to calculate a working time of said action.

46. The administration system of claim 44, wherein said database uses said time of said change in said action state to calculate a working time of said action, and said database records said working time therein.

47. The administration system of claim 43, wherein said first action state is recorded in said database after said front-end application software has set an action to said job.

48. The administration system of claim 43, wherein said second action state is recorded in said database after said front-end application software has acquired from said database a piece of information on a storage position for said job where said action as a working object is set, and a direct connection has been made between said job directory, storing said job, and said working directory according to said piece of information on said storage position.

49. The administration system of claim 48, wherein said third action state is recorded in said database after said direct connection has been disconnected by said front-end application software.

50. The administration system of claim 48, wherein said fourth action state is recorded in said database after said direct connection has been disconnected by said front-end application software and an action has been confirmed by said database.

51. The administration system of claim 43, wherein said first action state is recorded after a action for said job has been set by said front-end application software; said second action state is recorded after said front-end application

software has acquired from said database a piece of information on a storage position for said job where said action as a working object is set, and a direct connection has been made between said job directory, storing said job, and said working directory according to said piece of information on said storage position; said third action state is recorded after said direct connection has been disconnected by said front-end application software; and said fourth action state is recorded after said direct connection has been disconnected by said front-end application software, and said action has been confirmed by said database.

52. The administration system of claim 43, wherein upon receipt of a command on any one of said first, second, third and fourth action states, said front-end application software executes;

- 1) a process of referring said database said action state of said action as a authentication process, prior to setting of said action and a change of said connection state,
- 2) a process of determining, based on the result of said process of referring, if said command can be accepted or not,
- 3) a process of performing said change of said connection state and said setting of said action when said

command is accepted according to said process of determination, and

4) a process of sending a report that said command is not accepted when said command is not accepted according to said process of determination.

53. The administration system of claim 52, wherein in said authentication process, acceptability of a command on said first action state is determined according to whether said job to be set is present or not; acceptability of a command on said second action state is determined according to whether said action state is said first action state or not; acceptability of a command on said third action state is determined according to whether said action state is said second action or not; and acceptability of a command on said fourth action state is determined according to whether said action state is either one of said second action or said third action or not.

54. The administration system of claim 43, wherein said job directory is stored in a recording medium of a file server; and

upon receipt of a command on any one of said first, second, third and fourth action states, said file server executes;

1) a process of referring said database said action state of said action as an authentication process, prior to setting of said action and a change of said connection state,

2) a process of determining, based on the result of said process of referring, if said command can be accepted or not,

3) a process of performing said setting of said action and said change of said connection state when said command is accepted according to said process of determination, and

4) a process of sending a report that said command is not accepted when said command is not accepted according to said process of determination.

55. The administration system of claim 54, wherein in said authentication process, acceptability of a command on said first action state is determined according to whether said job to be set is present or not; acceptability of a command on said second action state is determined according to whether said action state is said first action state or not; acceptability of a command on said third action state is determined according to whether said action state is said second action state or not; and acceptability of a command on



said fourth action state is determined according to whether said working state is either one of said second working state or said third working state or not.

56. The administration system of claim 1, wherein a plurality of working subjects of said working subject are set as a group corresponding to said job in said job directory.

57. The administration system of claim 56, wherein when said working subject is brought into a state of a connected condition in response to a command for start or restart of work by said working subject, said working state of said working subject is recorded as "Working" in said database; when said working subject is brought into a state of a disconnected condition in response to a command for discontinuation of work by said working subject, the working state of said working subject is recorded as "Discontinued" in said database; and when said working subject is brought into a state of a disconnected condition in response to a command for the end of work by said working subject, the working state of said working subject is recorded as "Terminate" in said database.

58. The administration system of claim 57, wherein said working state of said job is recorded as "Working" in said database when said working state of at least one of said plurality of working subjects, in said group corresponding to said job to be administered, is in a state of "Working".

59. The administration system of claim 57, wherein said working state of said job is recorded as "Terminate" in said database when said working state of all of said plurality of working subjects, in said group corresponding to said job to be administered, is in a state of "Terminate".

60. The administration system of claim 57, wherein said working state of said job is recorded as "Discontinued" in said database when said working state of at least one of said plurality of working subjects, in said group corresponding to said job to be administered, is in a state of "Discontinued".

61. The administration system of claim 56, wherein said application software is a front-end application software.

62. The administration system of claim 61, wherein said working subject is one of said client user, said front-end

application software, a client external application software and said client terminal.

63. The administration system of claim 61, wherein said front-end application software causes at least one of a first, second and third working states to be recorded in said database as information regarding a working state of said working subject with respect to said action set on said job; and said front-end application software causes at least one of a first, second, third and fourth action states to be recorded in said database as information regarding an action state of said action set on said job.

64. The administration system of claim 63, wherein said front-end application software further causes the time of said change in said working state to be recorded in said database as information regarding said working state of said working subject with respect to said action set on said job; and said front-end application software uses said time of said change in said action state to calculate a working time of said action as information regarding said action state of said action set on said job.

65. The administration system of claim 64, wherein said database uses said time of said change in said working state to calculate a working time of said working subject for said action, and said database records said working time therein.

66. The administration system of claim 64, wherein said database uses said time of said change in said action state to calculate a working time of said action, and said database records said working time therein.

67. The administration system of claim 63, wherein said first action state is recorded in said database after said front-end application software has set an action to said job.

68. The administration system of claim 63, wherein said first working state is recorded in said database after said front-end application software has acquired from said database a piece of information on a storage position for said job where said action as a working object is set, and a direct connection has been made between said job directory, storing said job, and said working directory according to said piece of information on said storage position.

69. The administration system of claim 63, wherein said second working state is recorded in said database after said direct connection has been disconnected by said front-end application software.

70. The administration system of claim 63, wherein said third working state is recorded in said database after said direct connection has been disconnected by said front-end application software and a work of said working subject is confirmed.

71. The administration system of claim 63, wherein said second action state, said third action state and fourth action state are determined in accordance with said working state of said plurality of working subjects.

72. The administration system of claim 71, wherein when said working state of at least one of said plurality of working subjects in said group performing a work for said action is said first working state, a state of said action is recorded as "the second action state" in said database.

73. The administration system of claim 71, wherein when said working state of all of said plurality of working subjects in

said group performing a work for said action is said third working state, a state of said action is recorded as "the fourth action state" in said database.

74. The administration system of claim 71, wherein when said working state of at least one of said plurality of working subjects in said group performing a work for said action is said second working state and there is not any one of said plurality of working subjects whose working state is said first working state, a state of said action is recorded as "the third action state" in said database.

75. The administration system of claim 63, wherein said job directory is stored in a recording medium of a file server; and

upon receipt of a command on any one of said first, second and third working states, one of said file server and said front-end application software executes;

1) a process of referring said database said working state of said working subject as an authentication process, prior to a change of said connection state,

2) a process of determining, based on the result of said process of referring, if said command can be accepted or not,

3) a process of performing said change of said connection state when said command is accepted according to said process of determination, and

4) a process of sending a report that said command is not accepted when said command is not accepted according to said process of determination.

76. The administration system of claim 75, wherein in said authentication process, acceptability of a command on said first working state is determined according to whether said action as a working object is present or not, or whether said working state is said second working state or not; acceptability of a command on said second working state is determined according to whether said working state is said first working state or not; and acceptability of a command on said third working state is determined according to whether said working state is in either one of said first working state or said second working state or not.

77. A data access method, comprising the steps of:

providing a direct logical connection to a job directory for storing a file on a job as an object of a corresponding working subject, out of a plurality of job directories, according to requirements of said working subject; and

accessing said file of said job through said direct logical connection.

78. The data access method of claim 77, wherein out of said plurality of job directories, a direct connection is made only to the ones of said plurality of job directories of said corresponding working subject, in which said plurality of job directories are on a work activity; and

a direct connection is not made to the ones of said plurality of job directories of said corresponding working subject, in which said plurality of job directories are on a non-working activity.

79. The data access method of claim 77, wherein said job directory is recorded in a recording medium; and information regarding said working subject or a connection state, corresponding said job, is recorded in a database in accordance with said direct logical connection to said job directory.

80. The data access method of claim 79, wherein a recording action of said information to said database is executed by a front-end application software in a client terminal.